ARTIFICIAL INTELLIGENCE IN GST 2.0: LEGAL CHALLENGES AND THE FUTURE OF INDIA'S TAX ADMINISTRATION

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ABSTRACT

The integration of Artificial Intelligence (AI) into the Goods and Services Tax (GST) framework represents a significant development in India's digital tax administration. AI-enabled technologies are increasingly utilised to strengthen compliance monitoring, detect tax evasion, facilitate risk assessment, analyse transactional data, and improve administrative efficiency. While these technological advancements enhance tax governance, they also raise important legal concerns relating to transparency, accountability, procedural fairness, taxpayer rights, data privacy, and algorithmic decision-making. This paper examines the legal implications of AI-driven tax administration under GST 2.0 and evaluates whether the existing legal framework adequately regulates automated processes while preserving the rule of law and constitutional principles. The study examines the role of Artificial Intelligence in GST 2.0, analyses the legal challenges arising from AI-assisted tax administration, evaluates its impact on taxpayer rights, transparency, accountability, and natural justice, and recommends a balanced legal framework for the responsible integration of AI within India's GST regime. The research adopts a doctrinal methodology based on the analysis of statutory provisions, judicial precedents, government reports, policy documents, scholarly literature, and selected international practices relating to AI-enabled tax administration. The study demonstrates that AI can modernise GST administration only when supported by a robust legal framework ensuring transparency, human oversight, accountability, and the protection of taxpayer rights. It concludes by proposing legal and policy measures that balance technological innovation with constitutional values, thereby promoting a transparent, accountable, and legally sustainable framework for AI-driven tax administration in India while fostering responsible digital governance and public trust.

Keywords: Artificial Intelligence; GST 2.0; Tax Administration; Digital Governance; Taxpayer Rights; Algorithmic Accountability; Administrative Law.

1. Introduction

The introduction of the Goods and Services Tax (GST) on 1st July 2017 marked one of the most significant indirect tax reforms in India's history. By replacing a multitude of Central and State-level taxes with a single indirect tax, the government aimed to reduce the tax burden on businesses, ease tax compliance procedures, and create a unified common market. Over time, the GST regime has evolved from being a digital tax to a more data-centric system, with the increased use of data analytics and Artificial Intelligence (AI) in tax administration.

AI has become an essential component of tax administration, with tax authorities worldwide adopting it to analyse vast amounts of taxpayer data, detect anomalies in Input Tax Credit (ITC) claims, and identify risky taxpayers. These developments, often referred to as GST 2.0, have enhanced the efficiency of tax administration by enabling quicker generation of insights on tax evasion and taxpayer compliance.

However, the use of AI in tax administration raises several legal and constitutional issues. Decisions made by AI can have serious consequences for taxpayers, ranging from enhanced scrutiny to the cancellation of GST registration or denial of ITC claims. These concerns call for a careful examination of the law relating to the use of AI in indirect tax administration and the constitutional issues involved.

The Central Goods and Services Tax Act, 2017 (CGST Act) was enacted before AI started to play a crucial role in tax administration. While the CGST Act permits the use of modern technology in indirect tax administration, it does not explicitly refer to AI or the requirements for regulating its use in indirect tax administration. Similar observations can be made about the Indian Constitution. This raises an important constitutional question: to what extent can decisions taken by, or with the assistance of, AI be regarded as consistent with constitutional requirements?

Constitutional principles require governmental action to be fair, reasonable, and grounded in law rather than exercised arbitrarily. In other words, administrative action must remain subject to legal standards and the principles of natural justice. The use of AI in indirect tax administration must also follow these principles.

While most governments worldwide acknowledge the benefits of AI in tax administration, many have raised concerns about the lack of appropriate oversight and accountability mechanisms, especially with regard to individual rights. Several countries have adopted a cautious approach to the use of AI in tax administration, and legal frameworks relating to digital governance provide valuable guidance on how India can address some of the challenges associated with adopting AI in indirect tax administration.

This paper examines the role of AI in GST 2.0 from a legal and constitutional perspective. It explores some of the key legal issues raised by the use of AI in indirect tax administration and reviews international developments that India can consider while developing its own approach to managing AI-related issues in tax administration.

2. Conceptual and Theoretical Background

Application of AI in public administration has revolutionised the delivery of public services and ensured effective regulation and supervision of various sectors. AI refers to computer-generated programmes that can carry out functions that previously required human expertise. In tax administration, AI has proven to be a valuable tool in analysing vast amounts of taxpayer data, identifying patterns that indicate possible tax evasion, and assisting tax authorities to take appropriate enforcement actions.

AI is gradually becoming a critical component of tax administration, as it helps tax authorities to enhance compliance and prevent tax evasion. Several tax administrations worldwide are integrating AI into their operations, with some countries' governments developing strategies for tax administration in the AI era. India has also witnessed rapid digitalisation of its tax systems since the introduction of the GST. The creation of the Goods and Services Tax Network and the use of e-filing, e-way bills, and e-invoicing have been instrumental in this process, with authorities using data analytics to ensure taxpayer compliance and detect fraudulent activities.

The rapid digitalisation of the tax system has been made possible by the increasing application of information technology in tax administration, commonly referred to as digital governance. Digital governance focuses on using modern technology to improve governance and make it more citizen-centric and transparent. It promotes the use of technology to facilitate decision-making, enhance efficiency, and increase accountability in public administration. AI fits within the digital governance framework by supporting tax administration in making better decisions through increased access to data and improved analysis of taxpayer information. However, while digital governance can contribute to more efficient tax administration, effective regulation of AI is critical to ensuring the protection of taxpayer rights and ensuring that its use in tax administration is not counterproductive.

AI in tax administration operates within the constitutional framework, which requires that all actions taken by the state must be reasonable and not capricious. Decisions taken through the use of AI must follow the principles of natural justice, especially when they affect the rights of individual taxpayers. Another important consideration is the issue of accountability - while the use of AI can support decision-making, final responsibility for decisions resting with tax authorities remains with humans.

3. Statement of the Problem

The use of AI has enhanced the ability of tax authorities to detect fraudulent activities and ensure compliance with indirect tax laws. Through analysis of data generated by taxpayers and submitted on a voluntary basis, AI enables tax authorities to identify patterns that indicate possible tax evasion. The use of AI also facilitates identification of taxpayers who may require closer monitoring. However, the current legal and constitutional framework governing indirect tax administration provides limited guidance on the application of AI and the accountability of decisions made using this technology.

Currently, the CGST Act does not explicitly permit or restrict use of AI in indirect tax administration. Furthermore, the Constitution does not provide specific guidance on the use of AI or clarify issues relating to taxpayer rights in relation to this technology. Therefore, the introduction of AI in indirect tax administration raises several legal questions relating to the validity of decisions made by AI, the level of transparency required in relation to such decisions, and the extent to which such decisions are accountable to the law.

India has witnessed significant developments in digital tax administration in recent years, with the authorities using technology to enhance tax compliance and detect tax evasion. The next phase of developments, commonly referred to as GST 2.0, is expected to see increased use of AI in tax administration. This creates the need to understand the implications of use of AI in tax

4. Objectives of the Study

This study focuses on the legal and constitutional aspects of the use of AI in GST administration. While the technology has enabled tax authorities to enhance compliance and detect tax evasion, its use raises several legal and constitutional issues that need to be addressed if it is to contribute to effective tax administration while at the same time respecting taxpayer rights. This study examines the use of AI in tax administration and explores the following aspects:

1. The role played by AI in GST 2.0, with particular focus on its role in taxpayer compliance, detection of fraudulent activities, identification of high-risk taxpayers, and facilitation of taxpayer services.

2. Legal and constitutional constraints of the use of AI in indirect tax administration.

3. The implications of decisions taken through the use of AI and the extent to which they are consistent with the Indian Constitution.

4. International trends in regulation of AI in tax administration.

5. Legal and policy recommendations for regulation of the use of AI in indirect tax administration in India.

5. Research Methodology

5.1 Research Design

This study uses the doctrinal (black-letter) research design to examine the role played by AI in GST administration, as well as the legal implications of its use. This study does not involve the collection of primary data but focuses on a critical analysis of the existing laws and legal frameworks to determine the relevance of existing statutes and constitutional provisions in regulating the use of AI. In addition, this study reviews the recommendations made by various agencies and policy documents to determine the most optimal ways in which AI can be regulated while at the same time supporting effective tax administration and protecting taxpayer rights.

5.2 Sources of Data

This study relies on secondary data gathered from various sources, including the Indian Constitution, the CGST Act, 2017, case law, reports, and publications by several government agencies and private entities. Some of the publications reviewed include the reports and publications by the GST Council, articles published in academic journals, and books on the subject. In addition, this study draws upon information from international sources, including reports and publications by the Organisation for Economic Co-operation and Development (OECD) and the European Union.

5.3 Tools and Techniques

This study employs qualitative research techniques to analyse the information gathered from the various sources of data. A descriptive and analytical study of the role of AI in tax administration and its implications was carried out. A comparative study of international trends in regulation of AI in tax administration was also conducted.

5.4 Scope and Limitations

The scope of this study is limited to examining the legal and constitutional aspects of the use of AI in indirect tax administration in India. The study focuses on analysing the implications of using AI in indirect tax administration and does not examine technical aspects of AI or conduct surveys to gather public opinion on the subject. In addition, since laws relating to AI are still developing, it is possible that new policies and laws relating to regulation of AI will emerge, which could affect the conclusions of this study.

6. Data Analysis and Findings

The use of AI in tax administration has several advantages, including helping tax authorities to detect tax evasion and ensure taxpayer compliance. However, as discussed below, its use also raises several legal and constitutional issues relating to transparency and accountability.

6.1 Fraud Detection and Compliance Monitoring Using AI

Fraud detection and compliance monitoring are among the areas where AI has proven to be a valuable tool. Using data analytics, AI can help tax authorities to identify taxpayers who are likely to submit fraudulent claims or who have failed to comply with tax regulations. For instance, information provided by taxpayers regarding their transactions can be used by authorities to identify patterns that show signs of possible tax evasion.

By focusing on these taxpayers, tax authorities can ensure that they utilise the limited resources at their disposal in the most efficient manner. This is particularly critical in a country like India, where effective tax administration is vital to economic growth but is constrained by limited resources. In addition to detecting fraudulent activities, AI can also be used to monitor compliance with tax regulations. Information gathered from the e-way bill system and e-invoicing can be used to identify patterns that suggest possible fraudulent activities or failure to comply with tax regulations.

6.2 Risk Assessment and Predictive Analytics

Risk assessment involves identifying the likelihood that a taxpayer will fail to meet tax obligations or evade taxes. AI can be used to carry out risk assessments, with authorities intervening to investigate possible tax evasion based on the risk scores. In doing so, AI can help tax authorities to utilise their limited resources more efficiently by focusing on taxpayers who are more likely to evade taxes. Predictive analytics can be used to help tax authorities to identify patterns that indicate possible tax evasion or failure to comply with tax regulations. Such information can then be used by tax authorities to devise strategies for effective tax administration.

While risk assessments can be useful in ensuring effective tax administration, their use raises several issues relating to transparency and accountability. Predictive analytics relies on data to generate insights on patterns that can be used to forecast future events. Therefore, the accuracy of information used by AI programmes is critical to ensuring effective tax administration. However, predictive analytics is not infallible and can generate misleading information, which can cause authorities to take actions based on incorrect assumptions. In addition, such tools can be susceptible to manipulation, which raises several concerns about their use in tax administration.

6.3 Transparency of AI Decision-Making Process

One of the main concerns raised by the use of AI in tax administration is the transparency of the decision-making process. Decisions made using AI should be sufficiently transparent for taxpayers to understand the rationale behind them. This is particularly critical when such decisions have adverse effects on taxpayers' rights, such as when authorities decide to investigate taxpayers or deny them Input Tax Credit (ITC). If such decisions are based on opaque processes, then they may be considered as violations of taxpayers' rights to a fair hearing and due process.

6.4 Accountability for Decisions Made by AI

Even though the use of AI can enhance the efficiency and accuracy of tax administration, human intervention in the decision-making process should not be eliminated. This is mainly because accountability for decisions made by AI should rest with humans, who can be held responsible in case of errors or abuses. This observation highlights the importance of ensuring transparency in the operation of AI programmes so that decisions made can be explained and evaluated.

6.5 Privacy Concerns Relating to AI Use in Tax Administration

AI can be used to enhance taxpayer compliance with indirect tax regulations. However, its use raises several privacy concerns that need to be addressed. For instance, tax authorities may collect and store large amounts of data relating to taxpayers' activities. This raises concerns about whether such information is used appropriately and whether taxpayer privacy is respected.

6.6 International Trends in Regulation of AI in Tax Administration

Several countries are currently considering ways in which AI can be used to enhance tax administration. Some jurisdictions have raised concerns about the potential for abuse of this technology and have developed legal frameworks that can be useful in regulating its use in India. For instance, the OECD has developed guidelines that countries can consider when adopting digital governance and tax administration strategies. The guidelines focus on promoting transparency and accountability in the use of AI in governance and tax administration.

Similarly, the EU has developed a regulatory framework for AI that requires states to implement appropriate safeguards to ensure that the use of this technology is transparent, follows the principles of accountability, and respects citizens' rights. These considerations are critical in ensuring that the use of AI in tax administration serves its intended purpose without overriding taxpayers' rights.

7. Discussion

The findings of this study indicate that Artificial Intelligence has the potential to significantly strengthen India's GST administration by improving compliance monitoring, fraud detection, and overall administrative efficiency. AI-driven systems can analyse large volumes of transactional data within a short period, enabling tax authorities to identify irregularities that may not be detected through conventional methods. These technological advancements support more effective tax administration and contribute to improved revenue collection while reducing the administrative burden on both the government and compliant taxpayers.

However, the growing use of AI in tax administration also raises important legal and constitutional concerns. Unlike traditional administrative decisions, AI-assisted processes often rely on complex algorithms whose functioning may not be fully transparent to taxpayers. If an individual is subjected to investigation, denial of Input Tax Credit, or cancellation of GST registration based on an automated risk assessment, the absence of clear reasons or meaningful explanations may undermine procedural fairness. Such situations can weaken public confidence in the tax system and make it difficult for affected persons to exercise their legal rights effectively.

The discussion further highlights that technological efficiency cannot replace the fundamental principles of administrative law. Every decision affecting the rights and obligations of taxpayers must remain consistent with constitutional guarantees of equality, fairness, and reasonableness. Artificial Intelligence should therefore function as a decision-support tool rather than an autonomous decision-maker. Human officers must retain the authority to independently examine the facts, consider the circumstances of each case, and provide reasoned orders that comply with statutory requirements and the principles of natural justice.

Another significant issue concerns the protection of taxpayer data. AI systems depend on continuous access to extensive financial and commercial information for analysis and risk assessment. While such data enables more accurate identification of tax evasion, it also increases the responsibility of public authorities to ensure confidentiality, prevent misuse, and maintain adequate safeguards against unauthorised access. A transparent legal framework governing the collection, storage, processing, and sharing of taxpayer information is therefore essential for maintaining public trust in digital tax administration.

The comparative analysis undertaken in this study demonstrates that several jurisdictions have recognised these concerns and have begun developing regulatory frameworks that balance technological innovation with legal accountability. International practices increasingly emphasise transparency, explainability, human oversight, and institutional responsibility as essential elements of responsible AI governance. These approaches suggest that India should adopt similar safeguards while continuing to modernise its GST ecosystem.

Overall, the discussion confirms that the future of GST administration should not be viewed as a choice between technology and law. Instead, effective governance requires a balanced approach in which Artificial Intelligence enhances administrative efficiency while operating within a clear legal framework that protects taxpayer rights, upholds constitutional values, and ensures accountability at every stage of decision-making. Such an approach will encourage innovation without compromising the principles that form the foundation of a democratic legal system.

8. Conclusion

The introduction of Artificial Intelligence into India's GST system has the potential to make tax administration more organised, data-driven, and efficient. It may also help tax authorities improve revenue collection while reducing delays and unnecessary administrative burdens on compliant taxpayers. These developments have strengthened the capacity of tax authorities to analyse information, identify possible tax fraud, and improve administrative productivity through data-driven tools. However, the analysis also indicates that the present and future use of AI in tax administration requires careful legal consideration because its implications extend beyond economic efficiency to questions of rights, accountability, and lawful exercise of public power.

The study finds that the integration of AI into India's GST administration creates additional challenges for both the State and taxpayers. Although AI may assist tax authorities in improving revenue collection and detecting fraudulent activity, its use can create constitutional and administrative law concerns when technological systems are relied upon without adequate legal safeguards. If used without appropriate safeguards, AI-assisted processes may adversely affect taxpayer rights and impose additional burdens on individuals and businesses already subject to statutory tax obligations. The study further highlights that AI may assist administrative decision-making, but it should not become the sole basis for decisions affecting taxpayers because automated processes cannot, by themselves, satisfy all the requirements of constitutional and administrative law.

In conclusion, AI should be treated as a supporting tool for tax authorities rather than a replacement for human judgment. Although such technology can improve the efficiency and quality of tax administration and contribute to broader economic objectives, final decisions affecting taxpayers should remain with authorised public officials. This approach can help ensure compliance with legal and constitutional requirements while protecting taxpayer rights. Given the rapid pace of technological development, India needs to ensure that its legal framework, including the relevant rules and regulations, keeps pace with the expanding use of AI in tax administration.

9. Policy Suggestions and Future Research Agenda

Artificial Intelligence and its governance in India’s GST require a legal and institutional framework that fosters innovation while protecting constitutional rights and taxpayer autonomy. In light of the foregoing research findings, the following policy suggestions emerge:

1. **Need for a comprehensive legal framework:** Parliament needs to consider formulating specific statutes/ regulations for plugging existing legal gaps concerning the use of Artificial Intelligence in GST administration.

2. **Need for greater transparency:** Whenever decisions taken by an artificial intelligence tool result in adverse consequences for the taxpayer, he/she must be able to obtain explanations about the reasoning process involved. This aids better taxpayer understanding as well as accountability in addressing grievances. The principle of transparency and accessibility must inform the design of AI systems used in tax administration.

3. **Avoid direct and sole decision-making by artificial intelligence:** Human intervention by duly authorized and independent statutory authorities must form an integral part of decision-making in the tax administration.

4. **Enhanced cybersecurity and data protection:** Given that taxpayer data is likely to be handled by AI systems, it is imperative to adopt robust measures for data security, storage, and encryption in accordance with the existing data protection laws and constitutional rights.

5. **Capacity building for tax officials:** There is a need to conduct frequent training sessions for tax officers and officials tasked with overseeing AI applications to improve their digital literacy, understanding of AI and digital evidence, and the legal implications involved.

6. **Comparative studies on AI applications:** Future studies may explore practical aspects of implementing AI in the Indian context through empirical studies among taxpayers, tax officials, and technology experts. Comparative studies on evolving global practices on AI governance and legal policy would also be informative and offer useful insights for legislative innovations.

The aforesaid recommendations shall contribute to building a model AI governance framework that is transparent, inclusive, equitable, and conforms to the rule of law in India's GST administration. By enhancing the capacity of taxpayers and tax officials, India can transform its GST regime into a self-sustaining, futuristic, and transparent system while protecting the rights of all stakeholders.

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